

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) An organic electroluminescent display device, comprising:
a rear substrate;
an organic electroluminescent portion formed on a surface of the rear substrate and having a first electrode, an organic layer and a second electrode sequentially laminated;
a front substrate coupled to the rear substrate at an internal surface of the front substrate to seal an internal space in which the organic electroluminescent portion is accommodated, thereby isolating the organic electroluminescent portion from the outside;
a transparent moisture-absorbing layer comprising a porous material layer coated directly on the internal surface of the front substrate, wherein the porous material layer consists of a transparent material without a polymer adapted to transmit light emitted by the organic electroluminescent portion to the front substrate and to absorb moisture and to remain transparent even after absorption of moisture, and wherein the porous material layer is formed by coating a mixture comprising a silica on the internal surface of the front substrate and firing the mixture on the front substrate, and
a sealant disposed between the rear substrate and the transparent moisture-absorbing layer to couple the front substrate and the rear substrate.

2. (Original) The organic electroluminescent display device of claim 1, wherein the moisture-absorbing layer includes a plurality of absorption holes.

3. (Original) The organic electroluminescent display device of claim 1, wherein each of the plurality of absorption holes of the moisture-absorbing layer has a diameter of about 0.5 nm to about 100 nm.

4. (Original) The organic electroluminescent display device of claim 2, wherein the moisture-absorbing layer has a thickness of about 100 nm to about 50 μ m.

5. (Original) The organic electroluminescent display device of claim 4, wherein each of the plurality of absorption holes of the moisture-absorbing layer has a diameter of about 0.5 nm to about 100 nm.

6. (Original) The organic electroluminescent display device of claim 1, wherein the first electrode of the organic electroluminescent portion is a transparent electrode, and the second electrode of the organic electroluminescent portion is a reflection-type electrode.

7. (Original) The organic electroluminescent display device of claim 1, wherein the first electrode of the organic electroluminescent portion is a reflection-type electrode, and the second electrode of the organic electroluminescent portion is a transparent electrode.

8. (Original) The organic electroluminescent display device of claim 1, wherein an inorganic protection layer is further provided on the second electrode.

9. (Previously Presented) The organic electroluminescent display device of claim 8, wherein the protection layer is one of a metal oxide and a metal nitride.

10. (Original) The organic electroluminescent display device of claim 1, wherein the internal space defined by the front substrate and the rear substrate is made vacuum.

11. (Original) The organic electroluminescent display device of claim 1, wherein the internal space defined by the front substrate and the rear substrate is filled with an inert gas.

12. (Original) The organic electroluminescent display device of claim 1, wherein the front substrate is one of a glass substrate and a transparent plastic substrate.

13. (Previously Presented) The organic electroluminescent display device of claim 12, wherein a protection layer for protecting the front substrate against moisture is formed on one of the internal surface and an outer surface of the front substrate.

14. (Previously Presented) An organic electroluminescent display device comprising:
a rear substrate;

an organic electroluminescent portion formed on one surface of the rear substrate and having a first electrode, an organic layer and a second electrode sequentially laminated;

a front substrate coupled to the rear substrate at an internal surface of the front substrate to seal an internal space in which the organic electroluminescent portion is accommodated, thereby isolating the organic electroluminescent portion from the outside;

a moisture-absorbing layer made of a porous silica layer with a plurality of absorption holes coated on the internal surface of the front substrate, the moisture-absorbing layer further comprising a porous material layer coated directly on the internal surface of the front substrate, the porous material layer consisting of a transparent material without a polymer adapted to transmit light emitted by the organic electroluminescent portion to the front substrate and to

absorb moisture and to remain transparent even after absorption of moisture, and wherein the porous material layer is formed by coating a mixture comprising a silica on the internal surface of the front substrate and firing the mixture on the front substrate, and

a sealant disposed between the rear substrate and the moisture-absorbing layer to couple the front substrate and the rear substrate.

15. (Original) The organic electroluminescent display device of claim 14, wherein each of the plurality of absorption holes of the moisture-absorbing layer has a diameter of about 0.5 nm to about 100 nm.

16. (Original) The organic electroluminescent display device of claim 14, wherein the moisture-absorbing layer has a thickness of about 100 nm to about 50 μ m.

17. (Original) The organic electroluminescent display device of claim 16, wherein each of the plurality of absorption holes of the moisture-absorbing layer has a diameter of about 0.5 nm to about 100 nm.

18. (Original) The organic electroluminescent display device of claim 14, wherein the first electrode of the organic electroluminescent portion is a transparent electrode, and the second electrode of the organic electroluminescent portion is a reflection-type electrode.

19. (Original) The organic electroluminescent display device of claim 14, wherein the first electrode of the organic electroluminescent portion is a reflection-type electrode, and the second electrode of the organic electroluminescent portion is a transparent electrode.

20. (Original) The organic electroluminescent display device of claim 14, wherein an inorganic protection layer is further provided on the second electrode.

21. (Original) The organic electroluminescent display device of claim 20, wherein the protection layer is one of a metal oxide and a metal nitride.

22. (Original) The organic electroluminescent display device of claim 14, wherein the internal space defined by the front substrate and the rear substrate is made vacuous.

23. (Original) The organic electroluminescent display device of claim 14, wherein the internal space defined by the front substrate and the rear substrate is filled with an inert gas.

24. (Original) The organic electroluminescent display device of claim 14, wherein the front substrate is one of a glass substrate and a transparent plastic substrate.

25. (Previously Presented) The organic electroluminescent display device of claim 24, wherein a protection layer for protecting the front substrate against moisture is formed on one of the internal surface and an outer surface of the front substrate.

26. (Withdrawn) A method of manufacturing an organic electroluminescent display device comprising:

preparing a rear substrate having an organic electroluminescent portion;

coating porous silica on an internal surface of a front substrate;

coating a sealant on a portion outside an organic electroluminescent portion disposed on at least one of the rear substrate and the front substrate; and
assembling the rear substrate and the front substrate.

27. (Withdrawn) The method of claim 26, further comprising curing the sealant.

28. (Withdrawn) The method of claim 26, further comprising one of making the internal space defined by the rear substrate and the front substrate vacuum, and filling the internal space with an inert gas.

29. (Withdrawn) The method of claim 28, further comprising curing the sealant.

30. (Withdrawn) A method of manufacturing a plurality of organic electroluminescent display devices comprising:

preparing a rear substrate having a plurality of organic electroluminescent portions;
coating porous silica on an internal surface of a front substrate;
coating a sealant on portions outside the plurality of electroluminescent portions disposed on at least one of the rear substrate and the front substrate;
assembling the rear substrate and the front substrate, thereby forming a panel having a plurality of organic electroluminescent display devices; and
cutting the panel to manufacture the plurality of organic electroluminescent display devices.

31. (Withdrawn) The method of claim 30, further comprising curing the sealant.

32. (Withdrawn) The method of claim 30, further comprising one of making the internal space defined by the rear substrate and the front substrate vacuum, and or filling the internal space with an inert gas.

33. (Withdrawn) The method of claim 32, further comprising curing the sealant.